

Application No. 10/755,469
Amendment dated August 9, 2005
Reply to Office Action of May 9, 2005

Docket No.: 0941-0895P

AMENDMENTS TO THE CLAIMS

1. (Original) A semiconductor packaging structure, comprising:
 - a chip having an active surface and an opposing non-active surface, wherein the active surface consists of a central area and a peripheral area having a plurality of bonding pads;
 - a lead frame comprising a plurality of the leads, a plurality of tie bars, and a chip paddle, the tie bars connecting to the chip paddle and attached to the active surface of the chip in such a way as to avoid contact with the bonding pads; and
 - a plurality of wires electrically connecting the bonding pad and the leads.
2. (Original) The structure as claimed in claim 1, further comprising an encapsulation covering the chip, the bonding pads, the chip paddle, the leads, and the wires.
3. (Original) The structure as claimed in claim 1, wherein the chip paddle and the active surface of the chip are connected by non-conductive solid or liquid glue.
4. (Original) A semiconductor packaging structure, comprising:
 - a chip having an active surface and an opposing non-active surface, wherein the active surface consists of a central area and a peripheral area having a plurality of bonding pads;
 - a lead frame comprising a plurality of the leads, a plurality of tie bars, and a chip paddle, the tie bars connecting to the chip paddle and attached to the active surface of the chip in such a way as to avoid contact with the bonding pads, and each of the leads comprising a wire-connecting surface and a wire non-connecting surface;

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a plurality of wires electrically connecting with the bonding pad and the wire-connecting surface of the leads; and

an encapsulation covering the active surface of the chip, the bonding pads, the chip paddle, the wire-connecting surface of the leads, and the wires, such that the opposing non-active surface of the chip and the wire non-connecting surface of the leads are thereby exposed.

5. (Original) The structure as claimed in claim 4, wherein the leads further comprise a plurality of inner leads and outer leads covered by the encapsulation and outer leads extending beyond the encapsulation.

6. (Original) The structure as claimed in claim 4, wherein the chip paddle and the active surface of the chip are connected by non-conductive solid or liquid glue.

7. (Original) A semiconductor packaging structure, comprising:

a chip having an active surface and an opposing non-active surface, wherein the active surface consists of a central area and a peripheral area having a plurality of bonding pads;

a lead frame comprising a plurality of the leads, a plurality of tie bars, and a chip paddle having an adhering surface and a opposing non-adhering surface, the adhering surface is connected with the central area, the tie bars connecting to the chip paddle and attached to the active surface of the chip in such a way as to avoid contact with the bonding pads, and each of the leads comprising a wire-connecting surface and a wire non-connecting surface;

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a plurality of wires electrically connecting with the bonding pad and the wire-connecting surface of the leads; and

an encapsulation covering the active surface of the chip, the bonding pads, the adhering surface of the chip paddle, and the wire-connecting surface of the lead, and the wires, , such that the opposing non-active surface of the chip, the opposing non-adhering surface of the chip paddle and the wire non-connecting surface of the lead thereby exposed.

8. (Original) The structure as claimed in claim 7, wherein the leads further comprise a plurality of inner leads covered by the encapsulation and outer leads extending beyond the encapsulation.

9. (Original) The structure as claimed in claim 7, wherein the chip paddle and the active surface of the chip are connected by non-conductive solid or liquid glue.

10. (New) The structure as claimed in claim 1, wherein the chip paddle is protruding from the leads.

11. (New) The structure as claimed in claim 1, wherein the chip is surrounded by the chip paddle and the leads.

12. (New) The structure as claimed in claim 4, wherein the chip paddle is protruding from the leads.

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13. (New) The structure as claimed in claim 4, wherein the chip is surrounded by the chip paddle and the leads.

14. (New) The structure as claimed in claim 4, wherein the wire-connecting surface and the wire non-connecting surface of the leads are opposing.

15. (New) The structure as claimed in claim 4, wherein the opposing non-active surface of the chip and the wire non-connecting surface of the leads are exposed in the same surface of the encapsulation.

16. (New) The structure as claimed in claim 7, wherein the chip paddle is protruding from the leads.

17. (New) The structure as claimed in claim 7, wherein the chip is surrounded by the chip paddle and the leads.

18. (New) The structure as claimed in claim 7, wherein the wire-connecting surface and the wire non-connecting surface of the leads are opposing.

19. (New) The structure as claimed in claim 7, wherein the opposing non-active surface of the chip and the wire non-connecting surface of the leads are exposed in the same surface of

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the encapsulation, and the opposing non-adhering surface of the chip paddle are exposed in an opposing surface of the encapsulation.

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